REMARKS/ARGUMENTS

Claims 1-19 are pending. The terminal disclaimer of US Patent 6,792,515 had a typographical error, the patent number should be 6,792,535. Claims 1-4 and 14-16 stand rejected under 35 USC 102(e) as anticipated by Yoshiura et al (US Patent 6,711,276). Claims 5-13 and 17-19 stand rejected under 35 USC 103(a) over Yoshiura in view of Echizen et al (US Patent 6,728,408). These are new arguments for rejection.

TERMINAL DISCLAIMER REMARKS

The Examiner has pointed out that the previously filed terminal disclaimer of US Patent 6,792,515 had a typographical error, the patent number should be 6,792,535. A new terminal disclaimer is attached to this paper to address this inadvertent error.

REJECTIONS UNDER 35 USC 102(E) AND 103(A)

Claims 1-4 and 14-16 stand rejected under 35 USC 102(e) as anticipated by Yoshiura et al (US Patent 6,711,276). Claims 5-13 and 17-19 stand rejected under 35 USC 103(a) over Yoshiura in view of Echizen et al (US Patent 6,728,408).

INDEPENDENT CLAIM 1:

Claim 1 stands rejected as anticipated by Yoshiura. The Applicant disagrees, finding that though the Examiner has correctly quoted the Claim, there is no clear relationship of the quoted elements of the Claim and the referenced sections of the Yoshiura.

> 1.   (original) An apparatus for encoding a mark into digital data, comprising:
> means for locating in the digital data, using a predetermined pattern, at least two values that represents a flat area; and
> means for modifying the values in the flat area to encode a mark into the flat area;

wherein the means for locating in the digital data is further comprised of:

means for calculating a variablity for a selected portion of the digital data using the predetermined pattern; and

means for representing the flat area when the variability is less than a predetermined amount;

wherein the apparatus for encoding is part of a device receiving an unencoded data to create the digital data; and

wherein the apparatus for encoding is part of the device using the values in the flat area to create an encoded data.

The Applicant disagrees on every points of this rejection, and so will first quote the Examiner's argument, then present the text from Yoshiura the Examiner referred to, and finally, present the Applicant's remarks on the Examiner's argument and Yoshiura.

The Examiner has stated: Yoshiura discloses **means for locating in the digital data, using a predetermined pattern, at least two values that represents a flat area [col. 6 lines 46-57 i.e. detecting a target block]**;

Whereas the Yoshiura text being quoted states (as found on the PTO web site, note all subsequent quotes from this patent are also from the PTO web site):

> The inter-still-picture-frame motion detection routine 22 compares each still picture frame (hereafter referred to as target frame) being noticed as the subject of watermark information embedding with a still picture frame (hereafter referred to as reference frame) appearing K (where K is a positive integer) frames after on the time axis, and thereby detects a motion of the subject included in the target frame. This motion detection processing will be described in detail later by referring to FIG. 3.

The Applicant cannot find a mention of a target block nor any clear relationship between the quoted text of the Claim being examined and the cited reference.

The Examiner has stated: Yoshiura discloses **wherein the means locating in the digital data is further comprised of: means for calculating a variability for a selected portion of the digital data using the predetermined pattern [col 6, line 54-63, col 8 lines 29-36 i.e. calculating/determining a motion vector]**;

Whereas the Yoshiura text being quoted states (as found on the PTO web site):

> In the motion detection processing, the target frame is divided into a plurality of image blocks each having a predetermined size, such as, for example, 16 pixels by 8 pixels (=128 pixels). For each of the image blocks, a motion vector between it and its reference vector is determined. Here, the reference frame may be either of the future direction and the past direction. The value of a parameter K indicating the frame interval between the target frame and the reference frame (for example, K=10) can be arbitrarily specified by a user of the present system.

The Applicant can find a mention of a motion vector, but the cited text does not teach calculation of a variability of a selected portion of the digital data with the predetermined pattern, it teaches determining a vector of motion between an image block and a reference block. Variability and a motion vector are not the same, and the Applicant did not find text nor figures in Yoshiura that taught or suggested that a motion vector was a measure of variability.

The Examiner has also stated: Yoshiura discloses **wherein the means locating in the digital data is further comprised of: means for representing the flat area when the variability is less than a predetermined amount [col. 8 lines 48-57, Fig. 5, i.e. determining rules and area/block based on the magnitude of the motion vector].**

Whereas the Yoshiura text being quoted states:

> For example, as shown in FIG. 5, the rule selection routine 23 has a plurality of decision criterions R1, R2 and R3. According to the magnitude of the motion vector, the decision criterions specify an intensity specification table to be selected. For each

of the blocks included in the target frame, the rule selection routine 23 takes out a rule (FIG. 5) associated with a motion vector quantity (absolute value) detected by the inter-still-picture-frame motion detection routine 22 from the rule set file 32, and stores the rule in the usage rule file 33 so as to be associated with the image block.

The Applicant can find something being compared to something else, but not variability. The magnitude of a vector is the square root of the sum of the squares of its coordinates. That was what Yoshiura compared in the above quote, not variability.

The Examiner has stated: Yoshiura discloses **means for modifying the values in the flat area to encode a mark into the flat area [col. 7 lines 7-22 i.e. modifying/changing luminance or quantities of each of block]**;

Whereas the Yoshiura text being quoted states (as found on the PTO web site):

> As described in detail with reference to FIG. 7, the change position determination routine 24 analyzes a still picture included in the target frame, and derives a change easiness degree of each image block. According to the change easiness degree and an application rule taken out from the usage rule file 33, the change position determination routine 24 then determines luminance change positions (pixels) and/or change quantities of each of image blocks in the target frame.

> The change routine 25 receives the luminance change positions (pixels) and/or the change quantities of each of image blocks of the target frame from the change position determination routine 24. According to watermark information (bits) specified by the insertion information file 34, the change routine 25 then changes a state (luminance) of a specific pixel included in the above described image block.

The Applicant cannot find a mention of the flat area because there has been no calculation of a variability from a predetermined pattern, much less determining the flat area from the variability

being below a predetermined value. Consequently while Yoshiura appears to change some pixels, there is no teaching or suggestion that these are the flat area as claimed in this patent application.

The Examiner has stated: Yoshiura discloses **wherein the apparatus for encoding is part of a device receiving unencoded data to create the digital data; and wherein the apparatus for encoding is part of the device using the values in the flat area to create all encoded data. [Fig. 1 & 2]**

The Applicant finds that in looking at Figure 1 of Yoshiura, there is a storage device 3 and an input/output device 1 with double ended arrows to CPU Processor 2. Figure 2 of Yoshiura does not have an output object, does not state that anything input to the diagram is unencoded data, nor does it state that some object embodies digital data created from unencoded data. Nowhere in these two Figures is an apparatus shown as part of a device using the values in a flat area to create all the encoded data.

Summary of the Applicant's Anticipation Argument: No element of the Claim can be found in quoted text and Figures of Yoshiura based upon the Examiner's argument.

The Applicant's argument against using Yoshiura in combination with other prior art: Based upon the Applicant's review of the Examiner's argument, there are no elements of this Claim in Yoshiura, making it unavailable for use in combination with other prior art for an obviousness rejection for those claims which depend upon Claim 1.

CLAIMS DEPENDENT UPON CLAIM 1 AND REJECTED UNDER 35 USC 102(E)

Claims 2,3, 4 and 14-16 stand rejected as anticipated by Yoshiura. The Applicant disagrees, each argument given by the Examiner for rejecting these Claims was predicated on the argument rejecting Claim 1, which failed to establish even one element of that Claim:

2.   (previously presented) The apparatus of claim 1, wherein the predetermined pattern is a regular pattern.

3.   *(previously presented) The apparatus of claim 1, wherein the predetermined pattern is an irregular pattern.*

4.   *(previously presented) The apparatus of claim 1, wherein the predetermined pattern identifies a consecutive set of values.*

14.   *(previously presented) The apparatus of Claim 1, at least one of the means is implemented using a computer accessing a memory.*

15.   *(previously presented) The apparatus of Claim 1, wherein the device is included in a computer receiving the unencoded data.*

16.   *(previously presented) The apparatus of Claim 1, wherein the device communicates with a processor within a computer to create the encoded data within the computer.*

Regarding these Claims, in addition to being allowable for the novel and nonobvious features contained in them, these Claims are dependent upon Claim 1, inherit its limitations, and are allowable as argued for Claim 1. The Applicant requests that the rejection of these Claims be removed as well.

CLAIMS DEPENDENT UPON CLAIM 1 AND REJECTED UNDER 35 USC 103(A)

Claims 5-13 and 17-19 stand rejected over Yoshiura in view of Echizen. The Applicant disagrees, each argument given by the Examiner for rejecting these Claims was predicated on the argument rejecting Claim 1, which failed to establish even one element of that Claim:

5.   *(previously presented) The apparatus of claim 1, wherein the means for modifying the values is further comprised of:*
           means for modifying the values according to a recognizable amount.

6.   *(previously presented) The apparatus of Claim 5, wherein the means for modifying the values is further comprised of:*

means for adding the recognizable amount to the values.

7.   *(previously presented) The apparatus of claim 5, wherein the means for modifying the values is further comprised of:*

means for subtracting the recognizable amount from the values.

8.   *(previously presented) The apparatus of claim 5, further comprising the means for computing the recognizable amount includes:*

a means for calculating a function of the variability in the flat area.

9.   *(previously presented) The apparatus of claim 8, wherein the means for computing the recognizable amount is further comprised of:*

means for computing the recognizable amount as a multiple of the variability in the flat area.

10.   *(previously presented) The apparatus of claim 5, further comprising:*

means for modifying the values in the flat area to provide at least one known peak in the flat area.

11.   *(previously presented) The apparatus of claim 1, wherein the means for modifying the values is further comprised of:*

means for modifying at least two of the values in the digital data to represent a single mark value in the flat area.

12.   *(previously presented) The apparatus of claim 1, further comprising:*

means for locating in the digital data, using a predetermined pattern, at least two values that represents a second flat area; and

means for modifying the values in the second flat area to encode the mark into the second flat area.

13.   *(previously presented) The apparatus of claim 1, further comprising:*

means for converting the format of the digital data.

17.   (previously presented) The apparatus of claim 1, wherein the predetermined pattern is one dimensional.

18.   (previously presented) The apparatus of claim 1, wherein the predetermined pattern is two dimensional.

19.   (previously presented) The method of claim 1, wherein the predetermined pattern is three dimensional.
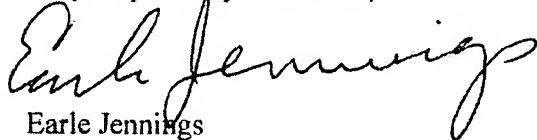
Regarding these Claims, in addition to being allowable for the novel and nonobvious features contained in them, these Claims are dependent upon Claim 1, inherit its limitations, and are allowable as argued for Claim 1. The Applicant requests that the rejection of these Claims be removed as well.

Summary of the Remarks

Applicant invites the Examiner to contact either Gregory Smith or Earle Jennings as listed below for a telephonic interview if so doing would expedite the prosecution of the application.

Very respectfully submitted,

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